



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/561,542

12/19/2005

Toyokazu Mori

050793

9383

23850 7590 03/31/2010  
KRATZ, QUINTOS & HANSON, LLP  
1420 K Street, N.W.  
4th Floor  
WASHINGTON, DC 20005

EXAMINER

GRANT, ALVIN J

ART UNIT

PAPER NUMBER

3723

MAIL DATE

DELIVERY MODE

03/31/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



## DETAILED ACTION

### *Claim Objections*

1. **Claim 3** is objected to because of the following informality:

In lines 3 and 4, the phrase "wherein the distance, x (mm), of movement of the tufted portion and the frequency, y (times) of back-and-forth motion per minute" is awkwardly worded.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1-6, 8-13 and 19-20** are rejected under 35 U.S.C. 102(b) as being anticipated by Wiedemann et al. 5,448,792.

**Regarding claims 1-4, 9 and 10**, Wiedemann discloses an electric toothbrush in which brushing is enabled by back- and-forth linear movement of a tufted portion in a longitudinal direction of a replaceable brush, wherein the product of the distance (mm) of movement of the tufted portion and the frequency (times) of back-and-forth motion per minute is set in the range of 3000-9000 (**2:42-50**); the product of the distance (mm) of movement of the tufted portion and the frequency (times) of back-and-forth motion per minute is set in the range of 4500-7500; and satisfies the formula  $y=ax+b$  where

Art Unit: 3723

$a = -3000$ ,  $10,000 \leq b \leq 12,500$ ,  $x > 0$ , wherein the distance,  $x$  (mm), of movement of the tufted portion and the frequency,  $y$  (times) of back-and-forth motion per minute **(2:42-50)**; the distance of movement of the tufted portion is set at 0.3-0.7 mm **(3:37-42)**.

**Regarding claims 5, 6, 11, 12 and 13**, the range of 8000 to 113000 per minute is achieved when the formula of claim 3 is considered.

**Regarding claim 8, 19 and 20**, the toothbrush inherently has a DC motor.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 7 and 14-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiedemann et al. in view of Blaustein et al. US 2003/0084525.

Wiedemann et al. is described above. Wiedemann et al. does not specifically disclose filaments in which the tip portions of at least 30% or more of all tufted filaments are split into a plurality of portions. Blaustein et al. discloses a toothbrush in which the filaments in which the tip portions of at least 30% or more of all tufted filaments are split into a plurality of portions so as to enhance the effectiveness of the toothbrush. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have made Wiedemann et al.'s toothbrush to have the filaments in which the tip

Art Unit: 3723

portions of at least 30% or more of all tufted filaments are split into a plurality of portions as taught by Blaustein et al. so as to enhance the effectiveness of the toothbrush.

### ***Response to Arguments***

6. Applicant's arguments, see page 2, filed 11/24/09, with respect to Applicants priority document predating the applied reference (US 2005/0011024 (to Ping)) have been fully considered and are persuasive. The Non-Final Rejection of 8/24/09 has been withdrawn. However, the subsequent amendment of the application has required additional search since the dynamics of the claims have been changed thereby. Consequently, the rejection has been made final.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 3723

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALVIN J. GRANT whose telephone number is (571)272-4484. The examiner can normally be reached on Mon-Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph J. Hail can be reached on (571) 272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. J. G./  
Examiner, Art Unit 3723

/Joseph J. Hail, III/

Supervisory Patent Examiner, Art Unit 3723